September 19, 2005

The Honorable Brian Schweitzer
Governor of Montana

Re: Report to the Governor on the Efficacy and Progress of the State's Capacity Development Strategy

Dear Governor Schweitzer:

I am pleased to present to you the report required by Section 1420(c)(3) of the federal Safe Drinking Water Act. This section requires that *not later than two years after the date on which a State first adopts a capacity development strategy, ... and every three years thereafter, the head of the State agency ... shall submit to the Governor a report that shall also be available to the public on the efficacy of the strategy and progress made toward improving the technical, managerial, and financial capacity of public water systems in the State.*

The Drinking Water State Revolving Fund is co-administered by the Departments of Environmental Quality and Natural Resources and Conservation and is similar to the Water Pollution Control State Revolving Fund. The program offers below-market rate loans for construction of public health-related water system improvements and provides funding for other activities related to public health and compliance with the federal Safe Drinking Water Act.

This report will be made available to the public on the department's web site. If you should have any questions about the report or any other issue related to the Drinking Water State Revolving Fund, please call me at 444-6815.

Sincerely,

Richard H. Opper
Director

c: Gary J. Wiens, Planning, Prevention, and Assistance Division

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY

REPORT TO THE GOVERNOR ON THE EFFICACY AND PROGRESS OF THE STATE'S CAPACITY DEVELOPMENT STRATEGY

The 1995 Montana Legislature created the Drinking Water Revolving Fund with the passage of HB493. In 1997, the Legislature amended the program with HB483 to make Montana law consistent with the reauthorization of the federal Safe Drinking Water Act amendments passed in 1996. This legislation, now codified as MCA 75-6-201, et seq., authorizes the Department of Environmental Quality (DEQ) and the Department of Natural Resources and Conservation (DNRC) to develop and implement the program. The Drinking Water State Revolving Fund (DWSRF) is administered by DEQ and DNRC and is similar to the Water Pollution Control State Revolving Fund.

Montana's Drinking Water State Revolving Fund Program received federal approval and was awarded its first capitalization grant on June 30, 1998. The program offers below-market loans for construction of public health-related infrastructure improvements as well as provides funding for other activities related to public health and compliance with the Safe Drinking Water Act. These other activities, or set-asides, include administration of the Drinking Water State Revolving Fund Program and technical assistance to small communities, as well as financial and managerial assistance, source water assessment and delineation, operator certification, and assistance with administration of activities in the DEQ's Public Water Supply Program.

As the primacy agency responsible for implementation of the Safe Drinking Water Act, DEQ is also responsible for the oversight of the Drinking Water State Revolving Fund Program. This role consists primarily of providing technical expertise, while DNRC provides financial administration of project loans and oversees the sale of state general obligation bonds. The majority of the funds for this program come to Montana in the form of capitalization grants through the U.S. Environmental Protection Agency (EPA). Montana provides the required 20 percent matching funds by issuing state general obligation bonds. Interest on the project loans is used to pay the general obligation bonds, thus no state general funds are used to operate the program. The repaid principal on the project loans is used to rebuild the revolving fund and to fund future projects. Federal and state laws require the Drinking Water State Revolving Fund to be operated in perpetuity.

The provisions of the Safe Drinking Water Act amendments of 1996 also include a strengthened approach to preventing drinking water contamination. Among these provisions is a requirement for each state to develop and implement a capacity development strategy, with the primary goal of promoting water system capacity. Water system capacity is defined as the ability to plan for, achieve, and maintain compliance with drinking water standards. Capacity has three components: technical, managerial,

and financial. Adequate capability in all three areas is necessary for a system to have satisfactory capacity.

The 1996 amendments to the Safe Drinking Water Act allow each state to use state revolving funds to enforce capacity requirements and implement a capacity development strategy. The goal of the strategy is to ensure that all community and non-transient non-community public water supply systems have the necessary technical, financial, and managerial capability to comply with the primary requirements of the Safe Drinking Water Act. Federal law also requires that a water system demonstrate adequate capacity as a condition of approval for obtaining a loan from Drinking Water State Revolving Fund.

Federal law also requires each state program to submit periodic progress reports. The purpose of this document is to comply with Section 1420(c)(3) of the Safe Drinking Water Act, which requires that *not later than two years after the date on which a State first adopts a capacity development strategy, ... and every three years thereafter, the head of the State agency ... shall submit to the Governor a report that shall also be available to the public on the efficacy of the strategy and progress made toward improving the technical, managerial, and financial capacity of public water systems in the State.*

CAPACITY DEVELOPMENT REQUIREMENTS FOR NEW WATER SYSTEMS

DEQ has the statutory authority to review and approve new public water systems or modifications of existing systems. DEQ also has primacy under the Safe Drinking Water Act to monitor public water systems for bacteriological, chemical, and radiological constituents. DEQ has adopted rules and designed circulars governing the design, construction, and monitoring of public water systems.

In accordance with the 1996 amendments to the Safe Drinking Water Act, DEQ developed and adopted capacity development regulations for new community and non-transient non-community water systems commencing operation after October 1, 1999. DEQ inserted capacity requirements into the department's public water supply rules and design circulars referenced by those rules. After review and approval by the Board of Environmental Review, final rules became effective on September 10, 1999.

Montana's Drinking Water State Revolving Fund Loan Program received EPA approval and was awarded its first (FY 1997) capitalization grant on June 30, 1998. Since then the program has provided loans to water systems at below-market interest rates for the construction of public health-related infrastructure improvements. As of June 30, 2005, the program had closed on 71 loans to 51 community and non-transient non-community water systems throughout the state.

Section 1452(a)(3) of the 1996 amendments to the Safe Drinking Water Act establishes that no assistance from the DSRF shall be provided to a public water system that *does not have the technical, managerial, and financial capability to ensure compliance with*

the requirements of this title or is in significant non-compliance with a national primary drinking water regulation or variance. Section 1452(a)(3) further specifies that a system without adequate capacity or in significant non-compliance *may* receive SRF assistance if the following provisions are met:

1. For those systems that are in significant noncompliance, the use of the assistance ensures compliance; and

2. For those systems without adequate capacity, *the owner or operator of the system agrees to undertake feasible and appropriate changes in operations (including ownership, management, accounting, rules, maintenance, consolidation, alternative water supply, or other procedures) if the State determines that the measures are necessary to ensure that the system has the technical, managerial, and financial capability to comply with the requirements of this title over the long term*.

BASIS OF AUTHORITY

DEQ is granted legal authority for capacity requirements by Title 75, Chapter 6, MCA, Public Water Supplies, Distribution and Treatment. Section 75-6-103 specifically grants the Board of Environmental Review authority to adopt rules for the following:

1. the siting, construction, operation, and modification of a public water supply system or public sewage system; and

2. the review of financial viability of a proposed public water supply system or public sewage system, as necessary to ensure the capability of the system to meet the requirements of 75-6-103.

Another important provision of this statute is that the Board of Environmental Review and DEQ are granted the authority to take enforcement actions against non-complying systems, along with the ability to assess administrative, civil, or criminal penalties.

DEQ has rules and design circulars that establish parameters for the design, construction, operation, and monitoring of public systems. Title 17, Chapter 38, Sub-chapter 1, Administrative Rules of Montana (ARM), provides the criteria for the design and construction of a public water supply. Title 17, Chapter 38, Sub-Chapter 1, ARM, references the design circulars used for public water supply systems: DEQ 1 is the design circular used for community water systems and DEQ 3 is the design circular used for non-community water systems. The design circulars provide standards for the siting and design criteria for new or modified public water systems. Title 17, Chapter 38, Sub-Chapter 2, ARM, contains the criteria for bacteriological, chemical, and radiological requirements for public water systems. This portion of the rules provides monitoring frequency requirements, maximum contaminant levels for regulated contaminants, treatment requirements, and reporting procedures of monitoring results to DEQ. DEQ currently maintains a computer database of the distribution, source, entry

point, and monitoring information. This database is updated whenever new monitoring results are received, modifications to the system are constructed, or violations occur.

DEQ has adopted cross-connection rules (Title 17, Chapter 38, Sub-Chapter 3, ARM) that specifically state all cross-connections in a public water system must be eliminated either through disconnection from the system or an approved backflow prevention assembly.

CAPACITY DEVELOPMENT CONTROL POINTS

As mentioned earlier, DEQ elected to place capacity development requirements in the existing rules and circulars. The major rule changes that include capacity requirements are as follows:

1. Section 17.38.101(4)(g) was modified to require notification to DEQ when a change of ownership occurs.

2. Section 17.38.101(7) was modified to require completion of construction, alteration, or extension of a public system within three years of approval. This section formerly required that construction, alteration, or extension of a public system commence within two years. This modification ensures that new systems or system modifications are installed based on the most current design criteria and technology.

3. Section 17.38.101(9) was modified to require notification to DEQ prior to a public system being operated. This section further requires that as-built records for the system, or portion of system constructed to date, be furnished to DEQ within 90 days after the system becomes operational. These modifications allow DEQ to have a more accurate inventory of operating public systems.

4. Section 17.38.101(10) was added to require proper certification be provided to DEQ that the system was built in accordance with the approved plans.

These sections provide DEQ with control points on new water systems and result in a more accurate database of new public water systems.

In addition to the rule modifications, DEQ added capacity development requirements to its existing design circulars, DEQ 1 and DEQ 3. DEQ requires that proposed public systems provide an engineering report, plans, and specifications for review and approval. Both of these circulars were modified to include criteria for new technologies available for water systems. The following capacity development requirements were included in each circular:

1. A groundwater under the direct influence of surface water assessment must be performed for each new groundwater source. DEQ created a new circular,

PWS-5, which provides the necessary information for performing this assessment.

2. A source water assessment report must be developed for each new source. DEQ created a new circular, PWS-6, which provides the necessary information for performing this assessment.

3. New systems must provide detailed information on ownership, management, operation, maintenance, and financing of the new system. DEQ requests specific capacity information in the appendices of DEQ 1 and DEQ 3. Similar information is requested for non-transient non-community systems.

DEQ has developed a guidance manual for applicants to assist in compiling the information necessary to meet the capacity development requirements. The manual is available in hard copy and electronically.

IMPLEMENTATION OF A CAPACITY DEVELOPMENT PROGRAM

The state's capacity development rules became effective on September 10, 1999. DEQ provided training to consultants, developers, and city-county officials following rule adoption. The training focused on assembling the required information in the proper format to comply with the capacity development rules, particularly groundwater under the direct influence of surface water assessment, source water assessment, and financial information. These three facets of the capacity development rules are the most labor-intensive requirements for consultants and developers to prepare.

DEQ tracks the progress of new community and non-transient non-community water systems throughout the approval process and during operation of the system. DEQ currently has an SDWIS/State database system, which contains the following information for each active public water supply system in the state:

1. owner, owner's address, contact person, operator, and size of system,
2. source and entry point information,
3. sampling profile for each entry point,
4. sampling results for all regulated contaminants,
5. remarks and history information of the system, such as system improvements or violations, and
6. results of sanitary surveys.

As part of the capacity requirements, information on system startup, records of as-built plans and certification, groundwater under the direct influence of surface water assessment, and source water assessment are included in the database for each new community and non-transient non-community water system. DEQ personnel routinely query the database in order to ensure that new systems have met all applicable capacity development requirements. DEQ has the ability to assess penalties against systems that fail to comply with capacity development requirements. Since

implementation of the capacity development rules, all new community and non-transient non-community water supply systems in the state have successfully completed the capacity review process.

DEQ's Water and Wastewater Operator Certification Program works closely with the Public Water Supply and DWSRF programs to ensure that all new community and non-transient non-community water systems have appropriately certified operators. As in the past, the Operator Certification Program continues to be a strong component in the state's capacity development strategy. The role of this program is described in more detail later.

DEQ's Source Water Protection Program also contributes to new water system capacity through its involvement in the review and approval of source water assessment reports for new water sources. The Source Water Protection Program staff identifies new sources at risk due to geological conditions, source construction, or potential contaminant sources and ensures that adequate treatment is provided at those sources. The efforts of the Source Water Protection Program have resulted in improved source water protection and proactive water treatment requirements.

SUMMARY OF ASSESSMENTS OF TECHNICAL, FINANCIAL, AND MANAGERIAL CAPACITY OF SYSTEMS SEEKING DWSRF ASSISTANCE

Since closing on its first loan in 1998, Montana's DWSRF Program has issued loans to 51 water systems throughout the state. A technical, financial, and managerial capacity assessment was conducted on each system prior to loan commitment.

Of the 51 systems provided DWSRF funding, 50 are community systems and one is a non-transient non-community system serving the Missoula County Fairgrounds. Twenty loans were issued to systems with populations under 500, twenty-seven to those with populations between 500 and 3,300, while seventeen were issued to systems with populations between 3,300 and 10,000 and seven to those with populations exceeding 10,000.

SYSTEMS IN SIGNIFICANT NONCOMPLIANCE RECEIVING DWSRF ASSISTANCE

Of the 51 systems receiving DWSRF assistance since the program's inception in 1998, fourteen were in significant non-compliance with the Safe Drinking Water Act. For two of these systems, DWSRF assistance was used to fund the construction of surface water treatment plants that brought the systems into compliance with the Surface Water Treatment Rule. Another six systems made facility improvements that brought them into compliance with other provisions of the Surface Water Treatment Rule. Three systems used DWSRF assistance to attain compliance with the provisions of the Total Coliform Rule. In two cases, DWSRF assistance funded construction of facilities essential for returning to compliance with the Lead and Copper Rule. One other system used DWSRF funding to replace an asbestos-cement transmission main responsible for asbestos maximum contaminant level violations.

SYSTEMS REQUIRED TO UNDERGO RESTRUCTURING IN ORDER TO RECEIVE DWSRF ASSISTANCE

Of the 51 systems receiving DWSRF assistance since the program's inception in 1998, none were required to undergo restructuring in order to receive DWSRF assistance. One system incorporated as a county water district before its loan application was submitted to the DWSRF Program.

CAPACITY DEVELOPMENT ASSISTANCE FOR EXISTING SYSTEMS

The DEQ currently contracts with nine county health departments and the Cadmus Group to perform sanitary surveys. Cadmus conducts surveys in those areas not covered by county staff. Cadmus has completed more than 925 surveys since June 2000. The department also contracts with Cadmus to provide on-site technical assistance to systems under boil orders and health advisories and to assist systems with other monitoring and compliance issues. In addition, the department also entered into a four-year contract with HDR Engineering to provide security training and assistance under a Homeland Security grant.

Other contracts directly related to capacity development are also in place. Two separate technical assistance contracts provide operations and maintenance and financial and managerial assistance, respectively. The Midwest Assistance Program is the department's contractor for both of these efforts. The operations and maintenance contract has been in place since May 1999, when MAP was first awarded the contract. In 2005, after a competitive process, the contract was again awarded to MAP. Since 1999, more than 730 site visits have been completed, providing both long and short-term operations and maintenance assistance. Assistance provided under this contract has resulted in lifting boil orders at surface water treatment plants, improved treatment performance at others, and development of long-range operations and maintenance planning at many small systems.

The state of Montana has over 1,900 public water supplies. Given the large number of systems and a shortage of staff with the requisite financial and managerial experience, the department has chosen to provide these services through a contractor. The department entered into a contract with the Midwest Assistance Program in March 2001 to provide these assistance services. Since then, MAP has provided in-depth financial and managerial services to approximately 90 public water systems. The format for financial and managerial assistance begins with telephone or written contact with the selected water system followed by one or more on-site visits to evaluate the financial and managerial status of the system. Following the site visits, a written report is prepared and mailed to the system owner or manager, summarizing the observations and recommendations discussed during the evaluation.

The department's Source Water Protection Program has also been building system capacity by identifying those systems at risk due to geological conditions, source construction, or potential contaminant sources. In conjunction with the Public Water

Supply Section, the Source Water Protection Program ensures that adequate treatment is provided at systems that have been identified as being at risk of having contaminant problems. The efforts of the Source Water Protection Program have led to improved source water protection and, when appropriate, additional water treatment (usually disinfection).

The department's Water and Wastewater Operator Certification Program has the responsibility for ensuring that each community and non-transient non-community water system has an operator certified at the appropriate level. The mission of the program is twofold. First, it protects the public health and the environment as required by Title 37, Chapter 42, MCA, and Title 17, Chapter 40, Sub-Chapter 1 and 2, ARM. These statutes mandate that each community and non-transient non-community water treatment plant and water distribution system and each public wastewater treatment plant system have a certified operator. Second, the program provides testing, recordkeeping, and program information services and ensures that comprehensive ongoing training is provided to the state's water and wastewater operator community. There are now approximately 1,590 certified water and wastewater operators in Montana.